

5. (unamended) The method of claim 3, wherein selecting comprises:  
determining if any of the plurality of processes is available to process the data;  
and  
if it is determined that one of the plurality of processes is available to process the data, choosing an available one of the plurality of processes.

6. (amended) The method of claim 1, further comprising:  
recording the port-to-process assignment on an assignment list.

7. (amended) The method of claim 6, further comprising:  
removing the port-to-process assignment from the assignment list upon receiving  
notification that the processing has been completed.

8. (unamended) The method of claim 1, wherein the data comprises packet data.

9. (unamended) The method of claim 8, wherein the packet data comprises a  
network packet.

10. (unamended) The method of claim 9, wherein the packet data comprises a  
predetermined portion of a network packet.

11. (unamended) The method of claim 9, wherein the network packet comprises an  
Ethernet packet.

12. (unamended) The method of claim 1, wherein the one of the plurality of ports  
comprises a 10/100 BaseT Ethernet port.

13. (amended) An article comprising a computer-readable medium which stores  
computer-executable instructions for receiving data from a plurality of ports for processing by a  
plurality of processes, the instructions causing a computer to:  
assign one of the plurality of ports to one of the plurality of processes;  
determine that additional data is available from the one of the plurality of ports;  
and  
await notification by the process that processing has been completed for the  
additional data prior to re-assigning the one of the plurality of ports to one of the plurality of  
processes.

14. (amended) The article of claim 13, wherein the article further comprises  
instructions causing a computer to:

determine if data is available from one of the plurality of ports.

15. (unamended) The article of claim 13, wherein the article further comprises instructions causing a computer to:

select one of the plurality of processes.

16. (unamended) The article of claim 15, wherein the instructions to select one of the plurality of processes comprises instructions causing a computer to:

determine if any of the plurality of processes is available to process the data; and

choose an available one of the plurality of processes if it is determined that one of the plurality of processes is available to process the data.

17. (amended) The article of claim 13, wherein the article further comprises instructions causing a computer to:

record the port-to-process assignment on an assignment list.

18. (amended) The article of claim 17, wherein the article further comprises instructions causing a computer to:

remove the port-to-process assignment from the assignment list upon receiving notification that the processing has been completed.

19. (withdrawn) A processor comprising:

a microengine for executing threads, the threads including a receive scheduler thread and receive processing threads;

a bus interface for receiving data from a port, the bus interface for indicating to the receive scheduler whether the port has data available for processing by one of the receive processing threads; and

the receive scheduler thread assigning the port to one of the receive scheduling threads if the bus interface has indicated that the port has available data and directing transfer of the data to the assigned one of the receive processing threads for processing, the receive scheduler thread inhibiting the assignment of the port to one of the receive processing threads for the processing of new data until the assigned one of the receive processing threads has completed the processing of the data.